

AMENDMENTS TO THE CLAIMS

CHANGE CLAIM IDENTIFIERS AS NEEDED

1-16. (Canceled)

17. (Currently amended) A kit for the synthesis of a polynucleotide, said kit comprising:

(a) a first DNA polymerase, wherein said first polymerase possesses 3'-5' exonuclease activity selected from the group consisting of Archaeobacterial DNA polymerases, and

(b) a second DNA polymerase, wherein said second polymerase lacks 3'-5' exonuclease activity selected from the group consisting of thermostable DNA polymerases lacking 3'-5' exonuclease activity; wherein the ratio of DNA polymerase activity of the first DNA polymerase to the DNA polymerase activity of the second DNA polymerase is greater than one to one.

18. (Currently amended) A kit according to claim [3]17, wherein said *Thermus aquaticus* DNA polymerase is selected from the group consisting of wild-type *Thermus aquaticus* DNA polymerase and N-terminal deleted forms of the same enzyme.

19. (Currently amended) A method of amplifying a polynucleotide sequence, said method comprising: the steps of mixing a composition with a synthesis primer, and a synthesis template, said composition comprising

(a) a first DNA polymerase, wherein said first polymerase possesses 3'-5' exonuclease activity selected from the group consisting of *Archaeobacterial* DNA polymerases, and

(b) a second DNA polymerase, wherein said second polymerase lacks 3'-5' exonuclease activity selected from the group consisting of thermostable DNA polymerases lacking 3'-5' exonuclease activity; wherein the ratio of DNA polymerase activity of the first DNA polymerase to the DNA polymerase activity of the second DNA polymerase is greater than one to one.

20. (Currently amended) A method according to claim [6]19, wherein said first DNA polymerase comprises *Pyrococcus furiosus* DNA polymerase.

21. (Currently amended) A method of claim [7]19, wherein said second DNA polymerase comprises a *Thermus aquaticus* DNA polymerase [is] selected from the group consisting of wild-type *Thermus aquaticus* DNA polymerase and N-terminal deleted forms of the same enzyme.

22. (Currently amended) A method according to claim [7]19, wherein said second DNA polymerase comprises *Thermus aquaticus* DNA polymerase.

23. (Currently amended) A method according to claim 21, wherein said *Thermus aquaticus* DNA polymerase comprises KlenTaq-278 DNA polymerase.

24. (Original) A method according to claim 20, wherein said second DNA polymerase comprises *Thermus aquaticus* DNA polymerase.

25. (Currently amended) A method according to claim 20, wherein said second DNA polymerase comprises KlenTaq-278 DNA polymerase.

26. (Currently amended) A method according to claim [6]19, wherein said first DNA polymerase comprises Vent DNA polymerase.

27. (Currently amended) A method according to claim 26, wherein said second DNA polymerase comprises *Thermus aquaticus* DNA polymerase.

28. (Currently amended) A method according to claim 26, wherein said second DNA polymerase comprises KlenTaq-278 DNA polymerase.

29. (Currently amended) A kit according to claim [3]17, wherein said first DNA polymerase comprises *Pyrococcus furiosus* DNA polymerase.

30. (Currently amended) A kit according to claim [3]17, wherein said second DNA polymerase comprises *Thermus aquaticus* DNA polymerase.

31. (Currently amended) A kit according to claim 18, wherein said *Thermus aquaticus* DNA polymerase comprises KlenTaq-278 DNA polymerase.

32-36. (Canceled)